REMARKS

Claims 1-36, 38, 41-53-76 are currently pending in the subject application and are presently under consideration. Claims 2-36, 38, 41-45, 47, 48, 51, 52, 54-58, 60, 61, 63-68, 70, 72-74, and 76 have been amended. Claims 37, 39, and 40 have been cancelled. A listing of all claims is found at pages 2-13.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claim 1-76 Under 35 U.S.C. §101

Claims 1-76 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. It is respectfully submitted that this rejection is improper for at least the following reasons. The subject claims product a useful, concrete, and tangible result.

> Because the claimed process applies the Boolean principle [abstract idea] ***to produce a useful, concrete, tangible result*** ... on its face the claimed process comfortably falls within the scope of §101. *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358. (Fed.Cir. 1999) (Emphasis added); *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed.Cir.1998). The inquiry into patentability requires an examination of the contested claims to see if the claimed subject matter, as a whole, is a disembodied mathematical concept representing nothing more than a "law of nature" or an "abstract idea," or if the mathematical concept has been ***reduced to some practical application rendering it "useful."*** *AT&T* at 1357 *citing In re Alappat*, 33 F.3d 1526, 31 1544, 31 U.S.P.Q.2D (BNA) 1545, 1557 (Fed. Cir. 1994) (Emphasis added) (holding that more than an abstract idea was claimed because the claimed invention as a whole was directed toward forming a specific machine that produced the useful, concrete, and tangible result of a smooth waveform display).

Applicants' invention relates generally to targeted item delivery with inventory management, such as targeted advertising with quotas. (*See e.g.*, pg. 1, lns. 6-8; pg. 3, lns. 1-2). The claimed invention is applicable to any type of commerce-related product or service placement in which an inventory of items must be managed. (*See e.g.*, pg. 11, lns. 7-9). The

items can include ads, products, services, *etc.* (*See e.g.*, pg. 11, lns. 20-21). The inventory to be managed can be ad impressions or products that need to be sold. (*See e.g.*, pg. 11, lns. 8-12). For example, the claimed invention can determine the best way to advertise when there is a limited number of a certain kind of product to be sold. (*See e.g.*, pg. 11, lns. 12-14).

The Examiner asserts claims 1-72 are directed to non-statutory subject matter and are directed toward "items" which are abstract ideas and therefore not patentable. Contrary to Examiner's contentions, the "items" claimed are not mere abstract ideas but rather tangible and concrete. Additionally, merely determining whether an abstract idea is claimed is ***not*** enough to deem the claimed invention not concrete or intangible; the inquiry requires an examination to see if the claimed invention, ***as a whole***, is applied in a practical application to produce a useful, concrete, and tangible result. (*AT&T Corp., v. Excel Communications, Inc.*, 172 F.3d 1352; 1357, 1999 U.S. App. LEXIS 7221, 15-16; 50 U.S.P.Q.2D (BNA) 1447 *citing In re Alappat*, 33 F.3d 1526, 31 U.S.P.Q.2D (BNA) 1545 (Fed. Cir. 1994)).

Independent claim 1 (and its corresponding dependent claims) recites a *computer-implemented method comprising* ***allocating*** *each of a* ***plurality of items*** *to at least one of a plurality of clusters ...* ***selecting an item*** *... and* ***effecting the item.*** An item, as defined in the specification can be, for example, ads, products, services, *etc.* (*See e.g.*, pg. 11, lns 20-21). Thus, the claimed "ideas" are not abstract ideas, as asserted in the office action, but rather represent ads, products, services, *etc.* Similarly, independent claims 62, 69, 71, and 75 (and corresponding dependent claims) relate to *items* and, likewise, are not merely abstract ideas.

Independent claim 36 (and its corresponding dependent claims) recites a *computer-implemented method comprising defining a plurality of clusters,* ***each cluster corresponding to a group of users*** *...* ***and, allocating an ad having a particular type.*** The group of users are persons and an ad can be an Internet ad or banner ad, generally displayed at the top of a web page. (*See e.g.*, pg. 1, lns. 12-13). The ads are advertisements, which are well known and used extensively to increase sales by drawing attention to a product, service, *etc.*, and are clearly not abstract ideas. Likewise, independent claims 46, 50, 53, and 59 recite a plurality of ads. Thus, claims 36, 46, 50, 53, and 59 clearly do not recite abstract ideas.

In addition, the specification provides various examples of practical applications. For example, the specification discloses that the claimed invention relates to allocation of an item (ads, products, services) such that the item is *selected* and *effected*. Allocation refers to filling

each slot of a cluster so as to maximize the number of click-throughs of an ad on a web site. (*See e.g.*, pg. 14, lns. 14-17). Effected refers to the item being *displayed or output to a user*, and thus perceived by the user, and can include the displaying of an ad or the displaying of a button on a web site for immediate purchase of an item by a user. (*See e.g.* pg. 11, ln. 23 to pg. 12, ln. 3). Thus, the useful, concrete, and tangible result is targeted advertising.

In view of at least the foregoing, it is readily apparent that the claimed invention reduces to a practical application that produces a useful, concrete, tangible result and is limited to practical applications in the technical arts; therefore, pursuant to *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358 (Fed.Cir. 1999), the subject claims are directed to statutory subject matter pursuant to 35 U.S.C. §101. Accordingly, this rejection should be withdrawn.

II. Rejection of Claims 1-76 Under 35 U.S.C §112

Claims 1-76 stand rejected under 35 U.S.C §112, first paragraph because current case law and the MPEP require such a rejection for claims that stand rejected under 35 U.S.C. §101. It is respectfully submitted that this rejection is improper for at least the following reasons. The rejection of claims 1-76 under 35 U.S.C. §101 should be withdrawn pursuant to the aforementioned comments rendering the subject rejection moot. Accordingly, this rejection should be withdrawn.

III. Rejection of Claim 1

Claim 1 stands rejected under the judicially created doctrine of double patenting over claim 1 of Heckerman, *et al.* (U.S. Patent No. 6,665,653). In compliance with 37 C.F.R. §1.321(c), a terminal disclosure is filed herewith to overcome the rejection. Accordingly, this rejection should be withdrawn.

IV. Rejection of Claims 1, 36, 50 and 53 Under 35 U.S.C. §102(e)

Claims 1, 36, 50 and 53 stand rejected under 35 U.S.C. §102(e) as being anticipated by Ballard (U.S. Patent Number 6,182,050). This rejection should be withdrawn for at least the following reasons. Ballard does not teach or suggest all limitations as recited in the subject claims.

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 1 recites a *computer-implemented method comprising allocating each of a plurality of items to at least one of a plurality of clusters* ***based on a predetermined criterion accounting for at least a quota for each item.*** Independent claims 50 and 53 recite similar limitations regarding each ad having at least a quota. Predetermined criterion is used, for example, to maximize the number of click throughs for all of the ads, given quotas and constraints. (*See e.g.*, pg. 15, lns. 8-11). Quota for each item can be ad-showing quotas or item-purchase quotas, for example. (*See e.g.*, pg. 11, lns. 21-23).

Ballard recites playback criteria, which are constraints placed on the timing for displaying advertisements. (*See e.g.*, col. 7, lns. 36-39). Ballard does not teach or even suggest allocating each of a plurality of items ...based on a predetermined criterion accounting for at least a quota for each item.

Independent claim 36 *recites a computer implemented method comprising* ***defining a plurality of clusters ... utilizing one of user information obtained without monitoring, a Bayesian network, or a naïve-Bayes-network clustering approach.*** Clusters may be constructed, for example, from a plurality of user information including browsing history. (*See e.g.*, pg. 19, lns. 13-15). A typical Bayesian network is illustrated at Fig. 4.

Ballard relates to associating a target criteria (*e.g.*, desired demographic information, desired affinity ranking, or target criteria filter) to each advertisement. (*See e.g.*, col. 2, lns. 11-15.) The target criteria is "determined by the advertiser." (*See e.g. id*). Ballard also recites an absolute reverse demographic selection wherein an advertiser specifies the desired demographics of consumers. (*See e.g.*, col. 10, lns. 47-50). However, Ballard is silent regarding defining a plurality of clusters by utilizing one of user information obtained without monitoring; a Bayesian network; or a naïve-Bayes-network clustering approach. Accordingly, this rejection should be withdrawn.

Based on at least the foregoing, the rejection of independent claims 1, 36, 50, and 53 should be withdrawn and the subject claims allowed.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP222USB].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

AMIN & TUROCY, LLP

David W. Grillo
Reg. No. 52,970

AMIN & TUROCY, LLP
24TH Floor, National City Center
1900 E. 9TH Street
Cleveland, Ohio 44114
Telephone (216) 696-8730
Facsimile (216) 696-8731